

OIB - C-130 Hercules 11/05/13 Science Report

Date: Tuesday, November 5, 2013

Mission: OIB

Mission Location: Thule, Greenland

Mission Summary:

LVIS/LVIS-GH Cryosat-2 Underflight

Today we flew an underflight of a Cryosat-2 orbit for the sea ice team. We started the CS-2 line at point 6 just after 10:06 local and CS-2 passed overhead at 10:27 local. Line end was just after point 16.

Flight altitude was at 26,000'

We encountered some patchy clouds in the middle third of the line but data collection rate about 90%.

The return leg repeated the outbound track but offset 1km to the north. Conditions were a little cloudier on the return but we averaged about 85% detection of the ground.

Transit to/from line start was clear and we collected data over several glaciers en route.

Both LVIS and camera instruments operated normally.

However, we had to narrow the left side of the LVIS swath to about 2/3rd it's usual size in order to avoid an area of the plexiglass window that is optically darkening. This was successful until the last hour of the flight when more darkening occurred - now on the RHS of the swath.

Calibration maneuvers on the return to Thule

Ramp pass before landing at Thule

LVIS-GH 300 GB

LVIS 100 GB

LVIS POS-AV 10 GB

LVIS Camera 128 GB

Submitted by: Michelle Hofton on 11/05/13

File:



[Cryosatorbit18968_V2.pdf](#)

Related Flight Report:

C-130 Hercules 11/05/13

Flight Number: 4

Payload Configuration: LVIS

Nav Data Collected: No

Total Flight Time: 7.8 hours

Submitted by: Cate Easmunt on 11/05/13

Flight Segments:

From:	BGTL	To:	BGTL
Start:	11/05/13 12:00 Z	Finish:	11/05/13 19:50 Z
Flight Time:	7.8 hours		
Log Number:	131001	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Comments: Next flight scheduled for Wednesday November 6, weather permitting.

Flight Hour Summary:

	131001	141001
Flight Hours Approved in SOFRS	100	
Flight Hours Previously Approved		52.5
Total Used	47.5	90.7
Total Remaining		-38.2

141001 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
11/06/13	5	Science	7.3	7.3	45.2	
11/08/13	6	Science	7.7	15	37.5	
11/09/13	7	Science	7.8	22.8	29.7	
11/12/13	8	Science	5.4	28.2	24.3	
11/14/13	9	Science	7.4	35.6	16.9	
11/15/13	Return transit, leg 1	Transit	8.5	44.1	8.4	
11/15/13	Return transit, leg 2	Transit	1.1	45.2	7.3	

Source URL: https://airbornescience.nasa.gov/science_reports/OIB_-_C-130_Hercules_11_05_13_Science_Report#comment-0

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

NASA Official: Bruce A. Tagg

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

131001 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
09/27/13	FCF / ECF #1	Check	2	2	98	
10/26/13	PCF	Check	3.7	5.7	94.3	
10/29/13	Transit (incomplete)	Transit	5.2	10.9	89.1	
10/30/13	Transit	Transit	7.9	18.8	81.2	
10/31/13	1	Science	7.2	26	74	
11/01/13	2	Science	7.3	33.3	66.7	
11/04/13	3	Science	6.4	39.7	60.3	
11/05/13	4	Science	7.8	47.5	52.5	